**Response under 37 C.F.R. 1.116**
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Title: FLUID EJECTION DEVICE

## IN THE CLAIMS

1. (Previously Presented) A fluid ejection device comprising:

a substrate;

a first fluid feed slot formed in the substrate and having a first fluid feed slot edge;

first firing resistors disposed along the first fluid feed slot and configured to respond to a first current to heat fluid provided by the first fluid feed slot via a fluid path; and

a reference conductor formed on the substrate and configured to conduct the first current from the first firing resistors, wherein the reference conductor is disposed under the fluid path in an area between the first fluid feed slot edge and the first firing resistors.

2. (Original) The fluid ejection device of claim 1, wherein the reference conductor is disposed between at least two of the first firing resistors.

3. (Withdrawn) The fluid ejection device of claim 1, comprising drive switches, wherein each of the drive switches is electrically coupled to a corresponding first firing resistor of the first firing resistors and the reference conductor is disposed over a portion of the drive switches.

4. (Previously Presented) The fluid ejection device of claim 1, comprising firing resistor areas disposed along the first fluid feed slot, wherein the reference conductor is disposed between at least two adjacent firing resistor areas.

5. (Withdrawn) The fluid ejection device of claim 1, comprising drive switches formed in a first layer and firing resistor areas formed in a second layer disposed along the first fluid feed slot, wherein the reference conductor is disposed between adjacent firing resistor areas and over a portion of the drive switches.

6. (Original) The fluid ejection device of claim 1, comprising drive switches, wherein each of the drive switches is electrically connected to a corresponding first firing resistor of the first firing resistors and the reference conductor.

7. (Original) The fluid ejection device of claim 1, comprising drive switches, wherein each of the drive switches is a field effect transistor that is electrically connected between a corresponding first firing resistor and the reference conductor.

8. (Previously Presented) The fluid ejection device of claim 1, wherein the reference conductor is disposed along the entire length of the first fluid feed slot.

9. (Previously Presented) The fluid ejection device of claim 1, wherein the reference conductor is disposed along opposing sides of the first fluid feed slot and along the entire length of the opposing sides of the first fluid feed slot.

10. (Previously Presented) The fluid ejection device of claim 1, wherein the first firing resistors are disposed along opposing sides of the first fluid feed slot and the reference conductor is disposed between the first firing resistors and the first fluid feed slot edge along one of the opposing sides of the first fluid feed slot and the first firing resistors and a second fluid feed slot edge along another one of the opposing sides of the first fluid feed slot.

11. (Previously Presented) The fluid ejection device of claim 1, comprising second firing resistors disposed along the first fluid feed slot and configured to respond to a second current to heat fluid provided by the first fluid feed slot, wherein the reference conductor is configured to conduct the second current from the second firing resistors and the reference conductor is disposed between the first fluid feed slot edge and the second firing resistors.

12. (Previously Presented) The fluid ejection device of claim 11, wherein the second firing resistors are disposed on opposing sides of the first fluid feed slot and the reference conductor is disposed between the second firing resistors and the first fluid feed slot edge along one of the opposing sides of the first fluid feed slot and the second firing resistors and a second fluid feed slot edge along another one of the opposing sides of the first fluid feed slot.

13. (Previously Presented) The fluid ejection device of claim 11, comprising a second fluid feed slot and third firing resistors disposed along the second fluid feed slot and configured to respond to a third current to heat fluid provided by the second fluid feed slot, wherein the reference conductor is configured to conduct the third current from the third firing resistors, and the reference conductor is disposed between the third firing resistors and a second fluid feed slot edge along the second fluid feed slot.

14. (Previously Presented) The fluid ejection device of claim 13, wherein the third firing resistors are disposed on opposing sides of the second fluid feed slot and the reference conductor is disposed between the third firing resistors and the second fluid feed slot edge along one of the opposing sides of the second fluid feed slot and the third firing resistors and a third fluid feed slot edge along another one of the opposing sides of the second fluid feed slot.

15. (Previously Presented) The fluid ejection device of claim 13, comprising fourth firing resistors disposed along the second fluid feed slot and configured to respond to a fourth current to heat fluid provided by the second fluid feed slot, wherein the reference conductor is configured to conduct the fourth current from the fourth firing resistors and the reference conductor is disposed between the second fluid feed slot edge and the fourth firing resistors.

16. (Previously Presented) The fluid ejection device of claim 15, wherein the fourth firing resistors are disposed on opposing sides of the second fluid feed slot and the reference conductor is disposed between the fourth firing resistors and the second fluid feed slot edge along one of the opposing sides of the second fluid feed slot and the fourth firing resistors and a third fluid feed slot edge along another one of the opposing sides of the second fluid feed slot.

17. (Previously Presented) The fluid ejection device of claim 15, comprising fifth firing resistors, wherein a first portion of the fifth firing resistors are disposed along the first fluid feed slot and configured to respond to a fifth current to heat fluid provided by the first fluid feed slot and a second portion of the fifth firing resistors are disposed along the second fluid

feed slot and configured to respond to the fifth current to heat fluid provided by the second fluid feed slot, wherein the reference conductor is configured to conduct the fifth current from the fifth firing resistors and is disposed between the first fluid feed slot edge and the first portion of the fifth firing resistors and between the second fluid feed slot edge and the second portion of the fifth firing resistors.

18. (Previously Presented) The fluid ejection device of claim 17, comprising sixth firing resistors, wherein a first portion of the sixth firing resistors are disposed along the first fluid feed slot and configured to respond to a sixth current to heat fluid provided by the first fluid feed slot and a second portion of the sixth firing resistors are disposed along the second fluid feed slot and configured to respond to the sixth current to heat fluid provided by the second fluid feed slot, wherein the reference conductor is configured to conduct the sixth current from the sixth firing resistors and is disposed between the first fluid feed slot edge and the first portion of the sixth firing resistors and between the second fluid feed slot edge and the second portion of the sixth firing resistors.

19. (Previously Presented) The fluid ejection device of claim 1, comprising a second fluid feed slot having a second fluid feed slot edge and second firing resistors, wherein a first portion of the second firing resistors are disposed along the first fluid feed slot and configured to respond to a second current to heat fluid provided by the first fluid feed slot and a second portion of the second firing resistors are disposed along the second fluid feed slot and configured to respond to the second current to heat fluid provided by the second fluid feed slot, wherein the reference conductor is configured to conduct the second current from the second firing resistors and is disposed between the first fluid feed slot edge and the first portion of the second firing resistors and between the second fluid feed slot edge and the second portion of the second firing resistors.

20. (Original) The fluid ejection device of claim 1, wherein the reference conductor comprises a conductive layer and a resistive layer.

21. (Previously Presented) The fluid ejection device of claim 1, comprising:

vaporization chambers fluidically coupled to the first fluid feed slot; and

an isolation layer configured to isolate the reference conductor from fluid flowing from the fluid feed slot to the vaporization chambers, wherein the reference conductor is disposed between the vaporization chambers and the first fluid feed slot edge.

22. (Previously Presented) A fluid ejection device comprising:

a substrate;

a first fluid feed slot formed in the substrate and having a first fluid feed slot edge;

first vaporization chambers fluidically coupled to the first fluid feed slot via a fluid path;

a reference conductor formed on the substrate and disposed under the fluid path in an area between the first vaporization chambers and the first fluid feed slot edge; and

an isolation structure configured to isolate the reference conductor from fluid flowing over the first fluid feed slot edge to the first vaporization chambers.

23. (Original) The fluid ejection device of claim 22, wherein the reference conductor is disposed between at least two of the first vaporization chambers.

24. (Previously Presented) The fluid ejection device of claim 22, wherein the reference conductor is disposed along opposing sides of the first fluid feed slot.

25. (Previously Presented) The fluid ejection device of claim 22, wherein the first vaporization chambers are disposed along opposing sides of the first fluid feed slot and the reference conductor is disposed between the first vaporization chambers and the first fluid feed slot edge along one of the opposing sides of the first fluid feed slot and the first vaporization chambers and a second fluid feed slot edge along another one of the opposing sides of the first fluid feed slot.

26. (Previously Presented) The fluid ejection device of claim 22, comprising fluid paths, wherein each of the fluid paths is fluidically coupled to the first fluid feed slot and a

corresponding one of the first vaporization chambers and the reference conductor is isolated from fluid flowing through the fluid paths by the isolation structure.

27. (Previously Presented) The fluid ejection device of claim 22, comprising:

a second fluid feed slot formed in the substrate and having a second fluid feed slot edge; and

second vaporization chambers fluidically coupled to the second fluid feed slot via a second fluid path,

wherein the reference conductor is disposed under the second fluid path in an area between the second vaporization chambers and the second fluid feed slot edge, and

wherein the isolation structure is configured to isolate the reference conductor from fluid flowing over the second fluid feed slot edge to the second vaporization chambers.

28. (Original) The fluid ejection device of claim 27, wherein the reference conductor is disposed between at least two of the second vaporization chambers.

29. (Previously Presented) The fluid ejection device of claim 27, wherein the second vaporization chambers are disposed along opposing sides of the second fluid feed slot and the reference conductor is disposed between the second vaporization chambers and the second fluid feed slot edge along one of the opposing sides of the second fluid feed slot and the second vaporization chambers and a third fluid feed slot edge along another one of the opposing sides of the second fluid feed slot.

30. (Previously Presented) The fluid ejection device of claim 22, comprising firing resistors, wherein each of the firing resistors is disposed in a corresponding one of the first vaporization chambers and configured to respond to a current to heat fluid provided by the first fluid feed slot, and

wherein the reference conductor is configured to conduct the current from the firing resistors.

31. (Original) The fluid ejection device of claim 30, comprising drive switches, wherein each of the drive switches is electrically coupled between a corresponding one of the firing resistors and the reference conductor.

32. (Withdrawn) The fluid ejection device of claim 31, wherein the reference conductor is disposed over a portion of the drive switches.

33. (Original) The fluid ejection device of claim 31, wherein the reference conductor is disposed between two of the firing resistors.

34. (Withdrawn) The fluid ejection device of claim 31, wherein the reference conductor is disposed between two of the firing resistors and over a portion of the drive switches.

35. (Withdrawn) A fluid ejection device comprising:

a substrate;

a first fluid feed slot formed in the substrate and having a first fluid feed slot edge;

first firing resistors disposed along the first fluid feed slot and configured to respond to a first current to heat fluid provided by the first fluid feed slot via a fluid path;

first drive switches disposed along the first fluid feed slot, wherein each of the first drive switches is electrically coupled to one of the first firing resistors and configured to supply the first current to the one of the first firing resistors; and

a reference conductor formed on the substrate and disposed over a portion of the first drive switches and under the fluid path in an area between the first firing resistors and the first fluid feed slot edge,

wherein the reference conductor is configured to conduct the first current from the first firing resistors.

36. (Withdrawn) The fluid ejection device of claim 35, comprising vaporization chambers fluidically coupled to the first fluid feed slot, wherein each of the first firing resistors is disposed substantially adjacent to a corresponding one of the vaporization

chambers and the reference conductor is disposed between the vaporization chambers and the first fluid feed slot edge.

37. (Withdrawn) The fluid ejection device of claim 35, wherein the reference conductor is disposed between at least two of the first firing resistors.

38. (Withdrawn) The fluid ejection device of claim 35, wherein the reference conductor is disposed between at least two of the first firing resistors and between two of the first drive switches.

39. (Withdrawn) The fluid ejection device of claim 35, wherein the first firing resistors are disposed on opposing sides of the first fluid feed slot and the first drive switches are disposed on the opposing sides of the first fluid feed slot, and the reference conductor is disposed over a portion of the first drive switches and between the first firing resistors and the first fluid feed slot edge along one of the opposing sides of the first fluid feed slot and over a portion of the first drive switches and between a second fluid feed slot edge along another one of the opposing sides of the first fluid feed slot.

40. (Withdrawn) The fluid ejection device of claim 35, comprising:

a second fluid feed slot formed in the substrate and having a second fluid feed slot edge;

second firing resistors disposed along the second fluid feed slot and configured to respond to the first current to heat fluid provided by the second fluid feed slot via a second fluid path; and

second drive switches disposed along the second fluid feed slot, wherein each of the second drive switches is electrically coupled to one of the second firing resistors and configured to supply the first current to the one of the second firing resistors,

wherein the reference conductor is disposed over a portion of the second drive switches and under the second fluid path in an area between the second firing resistors and the second fluid feed slot edge,

wherein the reference conductor is configured to conduct the first current from the second firing resistors.

41. (Withdrawn) The fluid ejection device of claim 35, comprising:

second firing resistors disposed along the first fluid feed slot and configured to respond to a second current to heat fluid provided by the first fluid feed slot; and

second drive switches disposed along the first fluid feed slot, wherein each of the second drive switches is electrically coupled to one of the second firing resistors and the reference conductor is disposed over a portion of the second drive switches and extending to between the second firing resistors and the first fluid feed slot edge.

42. (Withdrawn) The fluid ejection device of claim 35, comprising:

a second fluid feed slot formed in the substrate and having a second fluid feed slot edge;

second firing resistors disposed along the second fluid feed slot and configured to respond to a second current to heat fluid provided by the second fluid feed slot via a second fluid path; and

second drive switches disposed along the second fluid feed slot, wherein each of the second drive switches is electrically coupled to one of the second firing resistors and configured to supply the second current to the one of the second firing resistors,

wherein the reference conductor is disposed over a portion of the second drive switches and under the second fluid path in an area between the second firing resistors and the second fluid feed slot edge,

wherein the reference conductor is configured to conduct the second current from the second firing resistors.

43. (Previously Presented) A method of operating a fluid ejection device, comprising:

receiving fluid via a fluid path at first firing resistors disposed along a first fluid feed slot formed in a substrate, the first fluid feed slot having a first fluid feed slot edge and the fluid path extending between the first fluid feed slot edge and the first firing resistors;

receiving a first current at first firing resistors;

heating the fluid received from the first fluid feed slot in response to receiving the first current at the first firing resistors;

receiving the first current from the first firing resistors at a reference conductor formed on the substrate under the fluid path in an area between the first fluid feed slot edge and the first firing resistors; and

conducting a first part of the first current through the reference conductor as disposed between the first fluid feed slot edge and the first firing resistors.

44. (Previously Presented) The method of claim 43, comprising:

first firing resistor areas; and

conducting a second part of the first current through the reference conductor as disposed between the first firing resistor areas.

45. (Withdrawn) The method of claim 43, comprising:

gating the first current through drive switches; and

conducting a second part of the first current through the reference conductor as disposed over a portion of the drive switches.

46. (Withdrawn) The method of claim 45, comprising conducting the second part of the first current through the reference conductor along the entire length of the first fluid feed slot.

47. (Withdrawn) The method of claim 45, comprising receiving the first current from the first firing resistors on opposing sides of the first fluid feed slot.

48. (Withdrawn) The method of claim 45, comprising:

receiving a second current at second firing resistors disposed along the first fluid feed slot;

heating the fluid received from the first fluid feed slot in response to receiving the second current at the second firing resistors;

receiving the second current from the second firing resistors at the reference conductor; and

conducting part of the second current through the reference conductor as disposed between the first fluid feed slot edge and the second firing resistors.

49. (Withdrawn) The method of claim 48, comprising:

receiving fluid via a second fluid path at second firing resistors disposed along a second fluid feed slot formed in the substrate, the second fluid feed slot having a second fluid feed slot edge and the second fluid path extending between the second fluid feed slot edge and the second firing resistors;

receiving the first current at the second firing resistors;

heating the fluid received from the second fluid feed slot in response to receiving the first current at the second firing resistors;

receiving the first current from the second firing resistors at the reference conductor as formed on the substrate under the second fluid path in an area between the second fluid feed slot edge and the second firing resistors; and

conducting a second part of the first current through the reference conductor as disposed between the second fluid feed slot edge and the second firing resistors.

50. (Withdrawn) The method of claim 45, comprising:

receiving fluid via a second fluid path at second firing resistors disposed along a second fluid feed slot formed in the substrate, the second fluid feed slot having a second fluid feed slot edge and the second fluid path extending between the second fluid feed slot edge and the second firing resistors;

receiving a second current at the second firing resistors;

heating the fluid received from the second fluid feed slot in response to receiving the second current at the second firing resistors;

receiving the second current from the second firing resistors at the reference conductor as formed on the substrate under the second fluid path in an area between the second fluid feed slot edge and the second firing resistors; and

conducting part of the second current through the reference conductor as disposed between the second fluid feed slot edge and the second firing resistors.

51-55. (Cancelled)

56. (Previously Presented) A fluid ejection device comprising:

a substrate;

a first fluid feed slot formed in the substrate;

first vaporization chambers fluidically coupled to the first fluid feed slot via a fluid path; and

a reference conductor disposed under the fluid path in an area between an edge of the first fluid feed slot and the first vaporization chambers.

57. (Original) The fluid ejection device of claim 56 comprising:

an isolation structure configured to isolate the reference conductor from fluid flowing through the fluid path.

58-63. (Cancelled)